

Attorney's Docket No.: 07977-204002 / US3480D1

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Claim 21 is amended to recite the top gate structure and claim 25 is canceled. This obviates the objection to the drawings under 83(a).

Claim 31 is canceled to obviate the rejection under Rule 75(c).

Claims 25-27, 31, 32, and 38 have been canceled to obviate the rejections under 35 U.S.C. 112 (second paragraph).

Claims 21, 23, 27, 31, and 32 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Ota, Japanese document '615. In response, these claims are amended to recite the limitation that width between a side edge of the second conductive layer and a side edge of the second anodic layer is between 500Å and 1000Å, as recited at page 10, line 17. It is respectfully suggested that this amendment obviates the rejection under §102(b).

This rejection also obviates the 102(a) rejection based on Ota.

A number of claims stand rejected under 35 U.S.C. 103(a) as being obvious over Ha in view of Ota, alone and in view of the IBM Technical Disclosure Bulletin and/or Yamazaki '998. In response, independent claims 1, 6, 11, and 16 have been amended

Attorney's Docket No.: 07977-204002 / US3480D1

to include the limitation that a width between a side edge of the second conductive layer and a side edge of the anodic oxide layer is between 500Å and 1000Å. Ha, Ota, IBM, and Yamazaki do not disclose this limitation.

In addition, applicants have deleted claims 29 and 30 in order to avoid the rejection of these claims.

This should obviate the rejection.

New claims 39-43 are also added. Each of these claims recites that a width between a side edge of the second conductive layer and a side edge of the second anodic oxide layer is larger than a thickness of a first conductive layer. This feature is supported in the present specification at page 8, lines 9-17.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

Attorney's Docket No.: 07977-204002 / US3480D1

Please apply any charges or credits to Deposit Account

No. 06-1050.

Respectfully submitted,

Date:

10/15/02

Scott C. Harris

Reg. No. 32,030

PTO Customer No. 20985



Fish & Richardson P.C.

4350 La Jolla Village Drive, Suite 500

San Diego, California 92122

Telephone: (858) 678-5070

Facsimile: (858) 678-5099

10220675.doc

Attorney's Docket No.: 07977-204002 / US3480D1

VERSION TO SHOW CHANGES MADE

The application has been amended as follows.

In the Claims:

Claims 25-27, 29-32 and 38 have been canceled.

Claims 1, 6, 11, 16 and 21 have been amended as follows.

1. [Amended] A semiconductor device comprising:

a semiconductor layer comprising a source region, a drain region, and a channel region formed on an insulating surface;

a gate insulating film formed on said semiconductor layer;

a first conductive layer formed on said gate insulating film wherein said first conductive layer extends over said channel region;

a first anodic oxide layer formed on at least side surface of said first conductive layer;

a second conductive layer formed on said first conductive layer; and

a second anodic oxide layer formed on at least side surface of said second conductive layer,

[an insulating film comprising anodization oxide of said first and second conductive layers,]

wherein each of said first and second conductive layers comprises a material selected from the group consisting of

Attorney's Docket No.: 07977-204002 / US3480D1

molybdenum, tantalum, aluminum, chromium, nickel, zirconium, titanium, palladium, silver, copper, and cobalt,

wherein an anodization rate of said first conductive layer is greater than that of said second layer so that a width of said first conductive layer is narrower than that of said second conductive layer, and

[wherein said insulating film is formed on at least side surfaces of said first and second conductive layers,]

wherein width between a side edge of said second conductive layer and a side edge of said second anodic oxide layer is 500Å to 1000Å.

6. [Amended] A semiconductor device comprising:

a semiconductor layer comprising a source region, a drain region, and a channel region formed on an insulating surface;

a gate insulating film formed on said semiconductor layer;

a first conductive layer formed on said gate insulating film wherein said first conductive layer extends over said channel region;

a first anodic oxide layer formed on at least side surface of said first conductive layer;

a second conductive layer formed on said first conductive layer; and

Attorney's Docket No.: 07977-204002 / US3480D1

a second anodic oxide layer formed on top and side surface of said second conductive layer,

[an insulating film comprising anodization oxide of said first and second conductive layers,]

wherein each of said first and second conductive layers comprises a material selected from the group consisting of molybdenum, tantalum, aluminum, chromium, nickel, zirconium, titanium, palladium, silver, copper, and cobalt,

wherein an anodization rate of said first conductive layer is greater than that of said second layer so that a width of said first conductive layer is narrower than that of said second conductive layer, and

[wherein said insulating film is formed on side surfaces of said first and second conductive layers and a top surface of said second conductive layer,]

wherein width between a side edge of said second conductive layer and a side edge of said second anodic oxide layer is 500Å to 1000Å.

11. [Amended] A semiconductor device comprising:
a semiconductor layer;
a gate insulating film formed on said semiconductor layer;
a first conductive layer formed on said gate insulating film;

Attorney's Docket No.: 07977-204002 / US3480D1

a first anodic oxide layer formed on at least side surface of said first conductive layer;

a second conductive layer electrically connected to said first conductive layer; and

a second anodic oxide layer formed on at least side surface of said second conductive layer,

[an insulating film comprising oxide of said first and second conductive layers,]

wherein said first conductive layer comprises a first material selected from the group consisting of molybdenum, tantalum, aluminum, chromium, nickel, zirconium, titanium, palladium, silver, copper, and cobalt,

wherein said second conductive layer comprises a second material which is different from said first material,

wherein a width of said first conductive layer is narrower than that of said second conductive layer, and

[wherein said insulating film is formed on at least side surfaces of said first and second conductive layers,]

wherein width between a side edge of said second conductive layer and a side edge of said second anodic oxide layer is 500Å to 1000Å.

16. [Amended] A semiconductor device comprising:
a semiconductor layer;

Attorney's Docket No.: 07977-204002 / US3480D1

a gate insulating film formed on said semiconductor layer;
a first conductive layer formed on said gate insulating
film;

a first anodic oxide layer formed on at least side surface
of said first conductive layer;

a second conductive layer electrically connected to said
first conductive layer wherein said first conductive layer
comprises a different material from said first conductive layer;
and

a second anodic oxide layer formed on top and side surface
of said second conductive layer,

[an insulating film comprising oxide of said first and
second conductive layers,]

wherein said first conductive layer comprises a first
material selected from the group consisting of molybdenum,
tantalum, aluminum, chromium, nickel, zirconium, titanium,
palladium, silver, copper, and cobalt,

wherein said second conductive layer comprises a second
material which is different from said first material,

wherein a width of said first conductive layer is narrower
than that of said second conductive layer, [and]

wherein said insulating film is formed on side surfaces of
said first and second conductive layers and a top surface of
said second conductive layer , and

Attorney's Docket No.: 07977-204002 / US3480D1

wherein width between a side edge of said second conductive layer and a side edge of said second anodic oxide layer is 500Å to 1000Å.

21. [Amended] A semiconductor device comprising:

a semiconductor layer comprising a source region, a drain region, and a channel region formed over an insulating surface;

a gate insulating film formed over said semiconductor layer,

a gate electrode comprising a first conductive layer formed on [an insulating surface] said gate insulating film and a second conductive layer formed on said first conductive layer;

a first anodic oxide layer formed on side surface of said first conductive layer; and

a second anodic oxide layer formed on top and side surface of said second conductive layer,

[a first insulating film formed on said gate electrode;

a semiconductor layer comprising a source region, a drain region, and a channel region formed on said insulating film; and

a second insulating film comprising oxide of said first and second conductive layers,]

[wherein said first conductive layer comprises a first material selected from the group consisting of molybdenum,

Attorney's Docket No.: 07977-204002 / US3480D1

tantalum, aluminum, chromium, nickel, zirconium, titanium,
palladium, silver, copper, and cobalt,]

wherein said second conductive layer comprises a second
material which is different from said first material, [and]

wherein a width of said second conductive layer is narrower
than that of said first conductive layer, and

wherein width between a side edge of said second conductive
layer and a side edge of said second anodic oxide layer is 500Å
to 1000Å.

New claims 39-43 have been added.